

AMENDMENTS TO THE CLAIMS

1-31. Cancelled.

32. **(Previously Presented)** A network device comprising:

a cross-connect, wherein

said cross-connect is configured to receive a first frame and a second frame,
said first frame and said second frame are time-division multiplexed frames, and
said cross-connect is configured to relocate network management information
from a first set of byte locations of a first frame to a second set of byte
locations of a second frame.

33. **(Previously Presented)** The network device of claim 32, further comprising:

a control vector memory, wherein

said cross-connect is configured to receive a plurality of time slots,
said time slots comprise said first frame and said second frame, and
said control vector memory is coupled to control said cross-connect by virtue of
being configured to cause said cross-connect to cross-connect said time
slots.

34. **(Previously Presented)** The network device of claim 33, wherein said cross-connect comprises:

a plurality of TDM processors, wherein

said control vector memory is coupled to control each of said TDM processors by
virtue of being configured to cause said each of said TDM processors to
select at least one of said time slots.

35. **(Previously Presented)** The network device of claim 34, wherein said each of said TDM processors comprise:

an output interface; and

a multiplexer, wherein

an output of said multiplexer is coupled to said output interface, and

said control vector memory is coupled to control said multiplexer.

36. **(Previously Presented)** The network device of claim 34, further comprising:
a plurality of input buffers, wherein
each of said input buffers is coupled to at least one of said TDM processors,
said control vector memory is coupled to control said each of said input buffers,
said cross-connect is configured to receive a plurality of incoming time slots,
said cross-connect is configured to output a plurality of outgoing time slots,
said input buffers are configured to allow said incoming time slots to be
sequentially written into said input buffers, and
said input buffers are configured to allow said outgoing time slots to be randomly
read from said input buffers.
37. **(Previously Presented)** The network device of claim 36, wherein said each of said
TDM processors comprise:
a multiplexer, wherein
said control vector memory is coupled to control said multiplexer to select an
output of one of said input buffers.
38. **(Previously Presented)** The network device of claim 32, further comprising:
a message router, wherein
said message router is configured to extract and route said network management
information, and
an output of said message router is coupled to a first input of said cross-connect.
39. **(Previously Presented)** The network device of claim 38, further comprising:
a timing, communication, and control (TCC) processor, wherein
said TCC processor comprises said cross-connect, said control vector memory
and said message router.
40. **(Previously Presented)** The network device of claim 39, wherein
an output of said cross-connect is coupled to an output of said TCC processor,

a second input of said cross-connect is coupled to an input of said TCC processor, and an input of said message router is coupled to said input of said TCC processor.

41. **(Previously Presented)** The network device of claim 40, further comprising:
a first system communications link (SCL) bus, coupled to said input of said TCC processor, and
a second SCL bus, coupled to said output of said TCC processor, wherein
said cross-connect is configured to receive a plurality of incoming time slots via said first SCL bus,
said cross-connect is configured to output a plurality of outgoing time slots via said second ACL bus.
42. **(Previously Presented)** The network device of claim 40, further comprising:
a control vector memory, wherein
said control vector memory is coupled to control said cross-connect, and
said control vector memory is configured to cause said cross-connect to control a cross-connection of a plurality of said time slots.
43. **(Previously Presented)** The network device of claim 42, wherein
said control vector memory is configured to cause said cross-connect to control said cross-connection of said plurality of said time slots by virtue of being configured to cause said cross-connect to select one of said first input and said second input.
44. **(Previously Presented)** The network device of claim 42, wherein said cross-connect comprises:
a plurality of TDM processors, wherein
each of said TDM processors is configured to select at least one of said time slots,
and
said control vector memory is coupled to control each of said TDM processors.
45. **(Previously Presented)** The network device of claim 44, further comprising:
a plurality of input buffers, wherein

said each of said TDM processors comprise
an output interface; and
a multiplexer,
an output of said multiplexer is coupled to said output interface,
said control vector memory is coupled to control said multiplexer,
each of said input buffers is coupled to at least one of said TDM processors,
said control vector memory is coupled to control said each of said input buffers,
and
said control vector memory is coupled to control said multiplexer to select an
output of one of said input buffers.

46. **(Previously Presented)** A network device comprising:
a cross-connect, wherein
said cross-connect comprises
a plurality of TDM processors, and
a plurality of input buffers,
said control vector memory is coupled to control each of said TDM processors,
and
an output of each of said input buffers is coupled to an input of at least one of said
TDM processors.
47. **(Previously Presented)** The network device of claim 46, wherein
said cross-connect is configured to receive a first frame and a second frame,
said first frame and said second frame are time-division multiplexed frames, and
said cross-connect is configured to relocate network management information from a first
set of byte locations of a first frame to a second set of byte locations of a second
frame.
48. **(Previously Presented)** The network device of claim 46, wherein said each of said
TDM processors comprise:
an output interface; and
a multiplexer, wherein

an output of said multiplexer is coupled to said output interface, and
an input of said multiplexer is coupled to at least one of said input buffers.

49. **(Previously Presented)** The network device of claim 48, further comprising:
a control vector memory, wherein
said control vector memory is coupled to control said cross-connect
50. **(Previously Presented)** The network device of claim 49, wherein
said control vector memory is coupled to control said cross-connect by virtue of being
coupled to control said multiplexers and said input buffers.
51. **(Previously Presented)** The network device of claim 49, further comprising:
a message router, wherein
an output of said message router is coupled to a first input of said cross-connect.
52. **(Previously Presented)** The network device of claim 50, further comprising:
a timing, communication, and control (TCC) processor, wherein
said TCC processor comprises said cross-connect, said control vector memory
and said message router.
53. **(Previously Presented)** The network device of claim 52, wherein
an output of said cross-connect is coupled to an output of said TCC processor,
a second input of said cross-connect is coupled to an input of said TCC processor, and
an input of said message router is coupled to said input of said TCC processor.
54. **(Previously Presented)** The network device of claim 53, further comprising:
a first system communications link (SCL) bus coupled to said input of said TCC
processor, and
a second SCL bus coupled to said output of said TCC processor.
55. **(Previously Presented)** The network device of claim 53, wherein
said control vector memory is configured to cause said cross-connect to select one of said
first input and said second input.

56. (New) A method comprising:
receiving a first frame and a second frame, wherein
said first frame and said second frame are time-division multiplexed frames; and
relocating network management information from a first set of byte locations of a first
frame to a second set of byte locations of a second frame.
57. (New) The method of claim 56, further comprising:
receiving a plurality of time slots, wherein
said time slots comprise said first frame and said second frame; and
cross-connecting said time slots.
58. (New) The method of claim 56, further comprising:
selecting at least one of said time slots.
59. (New) The method of claim 58, further comprising:
receiving a plurality of incoming time slots;
sequentially writing said incoming time slots into a plurality of input buffers;
randomly reading a plurality of outgoing time slots from said input buffers; and
outputting said outgoing time slots.
60. (New) The method of claim 56, further comprising:
extracting said network management information; and
routing said network management information.
61. (New) The method of claim 60, wherein said cross-connect comprises:
selecting at least one of said time slots.
62. (New) An apparatus comprising:
means for receiving a first frame and a second frame, wherein
said first frame and said second frame are time-division multiplexed frames; and
means for relocating network management information from a first set of byte locations
of a first frame to a second set of byte locations of a second frame.

63. (New) The apparatus of claim 62, further comprising:
means for receiving a plurality of time slots, wherein
said time slots comprise said first frame and said second frame; and
means for cross-connecting said time slots.
64. (New) The apparatus of claim 62, further comprising:
means for selecting at least one of said time slots.
65. (New) The apparatus of claim 64, further comprising:
means for receiving a plurality of incoming time slots;
means for sequentially writing said incoming time slots into a plurality of input buffers;
means for randomly reading a plurality of outgoing time slots from said input buffers;
and
means for outputting said outgoing time slots.
66. (New) The apparatus of claim 62, further comprising:
means for extracting said network management information; and
means for routing said network management information.
67. (New) The apparatus of claim 66, wherein said cross-connect comprises:
means for selecting at least one of said time slots.
68. (New) A computer program product comprising:
a first set of instructions, executable on a computer system, configured to receive a first
frame and a second frame, wherein
said first frame and said second frame are time-division multiplexed frames;
a second set of instructions, executable on said computer system, configured to relocate
network management information from a first set of byte locations of a first frame
to a second set of byte locations of a second frame; and
computer readable media, wherein said computer program product is encoded in said
computer readable media.

69. (New) The computer program product of claim 68, further comprising:
a third set of instructions, executable on said computer system, configured to receive a plurality of time slots, wherein
said time slots comprise said first frame and said second frame; and
a fourth set of instructions, executable on said computer system, configured to cross-connect said time slots.
70. (New) The computer program product of claim 69, further comprising:
a fifth set of instructions, executable on said computer system, configured to select at least one of said time slots.
71. (New) The computer program product of claim 70, further comprising:
a sixth set of instructions, executable on said computer system, configured to receive a plurality of incoming time slots;
a seventh set of instructions, executable on said computer system, configured to sequentially write said incoming time slots into a plurality of input buffers;
an eighth set of instructions, executable on said computer system, configured to randomly read a plurality of outgoing time slots from said input buffers; and
an ninth set of instructions, executable on said computer system, configured to output said outgoing time slots.
72. (New) The computer program product of claim 69, further comprising:
a fifth set of instructions, executable on said computer system, configured to extract said network management information; and
a sixth set of instructions, executable on said computer system, configured to select at least one of said time slots.